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Vladimir Prelog and His Contribution to Stereochemistry

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Biography

Personal Life

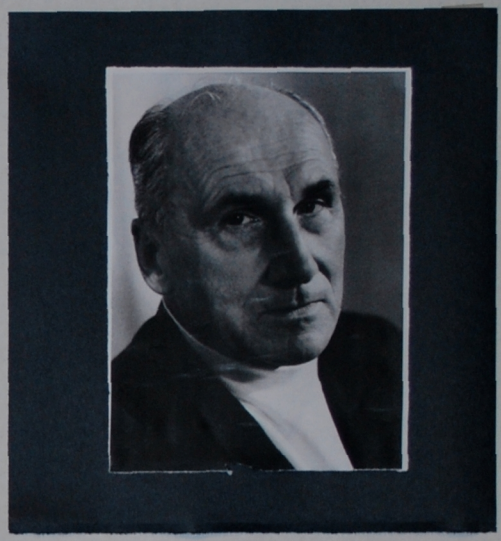
- 23 July 1906 – 7 January 1998 (91)
- Born in Sarajevo of former Austria Hungary
- Highschool in Zagreb where he published his first scientific paper
- Attended Czech Technical University in Prague
- Married to Kamila Vitek and had a son Jan

Career

- Worked at the private lab of G.J. Driza out of school
- Began lecturing at Zagreb University in 1935
- Escaped to Zurich, Switzerland in 1941 and began working at the Swiss Federal Institute of Technology (ETH)
- Became full Professor in 1957

Awards

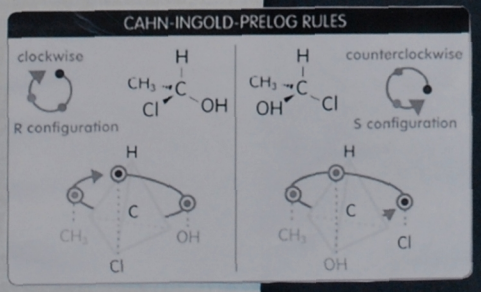
- Elected a Foreign Member of the Royal Society (ForMemRS) in 1962
- 1975 Nobel Prize in Chemistry
- Became honorary member of the Yugoslav Academy of Sciences and Arts in 1986



Work and Research

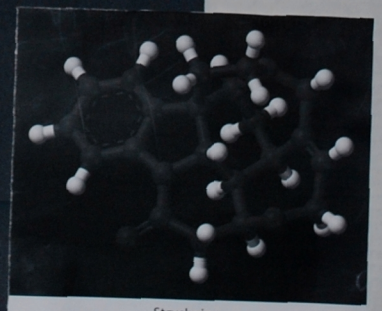
CIP Naming System

- Created with Robert Cahn and Christopher Ingold
- Specifies absolute configuration of asymmetric molecules
- Three Parts
  - Sequence rule
  - Classify molecule as left or right handed
  - Designate R/S

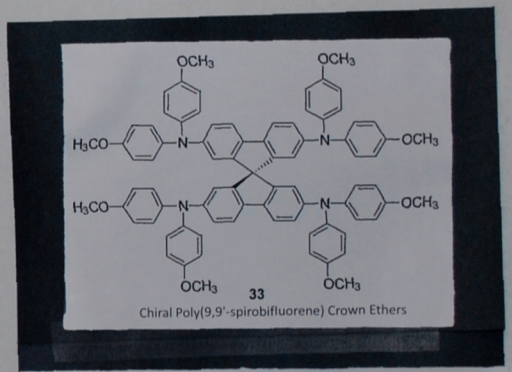


Additional Work in Chirality and Stereochemistry

- Investigation into various chemical compounds
- Disproved Roberts Robinson's formula for strychnine
- Research into the physical characteristics of molecules such as Chiral Poly(9,9'-spirobifluorene) Crown Ethers
- Helped determined structure of various compounds such as steroids, triterpene, quinine, strichnine, solanine and other alkaloids



Strychnine



Chiral Poly(9,9'-spirobifluorene) Crown Ethers

Summary

Vladimir Prelog had great influence on the field of stereochemistry. He not only has a large and varied portfolio of compounds into which he has contributed significant research, his work in creating a system for specifying asymmetric compounds is instrumental in fundamental understanding of chirality. Though Prelog's contributions to more advanced stereochemistry cannot be understated, it's the nomenclature system bearing his name that he is most known for as it is a necessity for scientists of all countries to communicate with each other.

Acknowledgments

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Vladimir Prelog Biography. - Childhood, Life Achievements & Timeline, http://www.thefamouspeople.com/profiles/vladimir-prelog-6025.php (accessed Apr 12, 2016).